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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/912,308

07/26/2001

Mitsuhiro Shimazu

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21369

7590

03/20/2006

POSZ LAW GROUP, PLC
12040 SOUTH LAKES DR.
SUITE 101
RESTON, VA 20191

EXAMINER

AMINI, JAVID A

ART UNIT

PAPER NUMBER

2672

DATE MAILED: 03/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/912,308

Applicant(s)

SHIMAZU ET AL.

Examiner

Javid A. Amini

Art Unit

2672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/10/2006</u> | 6) <input type="checkbox"/> Other: _____ |

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/10/2006 has been entered.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 1/10/2006 was filed after the mailing date of the Final office action on 8/10/2005. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-12 rejected under 35 U.S.C. 103(a) as being unpatentable over Ottenstein with Patent number of 5,270,818, and further in view of Helms, Frank P. (hereinafter refers as Helms), Patent number of 5,952,992.

1. Claim 6.

A display device disposed in a cabin of a construction machine, which comprises:
Ottenstein at col. 1, lines 39-67 teaches that his work relates to cockpit displays and more

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particularly to automatic adjustment of the brightness of cockpit displays. The next step of claim claims: "A display screen with a background portion and a display portion, the display portion displaying a current status of the construction machine, the display device displaying at least one color in the background portion thereof and at least one image in the display portion thereof, said at least one color displayed in said background portion and said at least one image displayed in said display portion respectively having a brightness, saturation and hue".

Examiner's comments: The claim's language apply to any type of LCD and CRT displays displaying data information, and in order to be able distinguishing between data information on the display area, the display must contain different background brightness than the foreground brightness.

Examiner's suggestion: Applicant requires differentiating between the background portion and the display portion, so a person skill in the art would be able to distinguish the combination of the display portion and the background portion as one image or as two different images.

The primary reference Ottenstein at col. 2, lines 59-62 teaches the second part of claim 6 that covers the background and display portions, for purpose of this description, contrast can be defined as $(F-B)/B$, where F is foreground brightness and B is background brightness. The third part of claim 6 claims as follows: change means for changing at least one of the respective brightness, saturation and hue of said at least one color displayed in said background portion relative to the respective brightness, saturation and hue of said at least one image displayed in said display portion. Applicant on page 4 third paragraph discloses the function of "change means for" changing the difference in brightness between the background and display portions.

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The primary reference in fig. 1, (12, 13 and 14) illustrates two sensors for detecting the ambient light. The auto brightness control provides the following benefits. (1) The display contrast remains constant over varying ambient brightness (2) The display brightness can be controlled by the operator in Auto mode for any fixed level of ambient brightness. (3) More specifically, the display contrast is selectable by the operator, and the last operator selected contrast will be maintained over varying ambient brightness. (4) The display brightness is not reduced by selecting Auto mode. (5) The full range of ambient brightness is supported, from 500 to 4000 Foot-lamberts. (6) Automatic brightness adjustments occur smoothly (without flashing).

The primary reference Ottenstein does not specify the type of display as a "LCD", however, Helms in col. 2, lines 7-47 teaches liquid crystal displays (LCDs), therefore it can be disposed in a cabin of a construction machine. Knowing that the Applicant on page 11, last line discloses that the embodiment of this invention imagines the liquid crystal display. Applicant in the specification at page 8, line 11 specifies the brightness of the display colors of any (e.g., the background portion of the background portion or the display portions. Helms in col. 2, lines 13-18 discloses a photodetector located proximate the front of the LCD generates to brightness control circuitry signals indicative of ambient lighting conditions. These signals are correlated to automatic brightness control values for use in controlling the output of a backlight driver circuit that determines the brightness level of the LCD. Applicant on page 8 of the specification, at first paragraph discloses an illuminance detected by illuminance detecting. Helms discloses that the brightness control system changes automatically the background portion and the display portion, however, the motivation to combine the two reference are: The cockpit display is considered using any small enclosed area, that can be considered a small area in the

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construction machine. That equipped with proper tools to provide the status of the particular machine. The second reference relates to a portable computer that automatically adjusts the LCD brightness, and the portable computer can be installed in a small area, e.g. in the construction machine.

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Helms's invention in fig. 2 (12) introduces the LCD panel into the primary reference Ottenstein's fig. 1 (25) that is designed for a CRT display, in order to substitute applicant's described structure as background portion and display portion in a LCD display.

2. Claims 7 and 8.

The step of this claim is obvious because the claim language claims the display device (e.g., LCD or a Laptop as Helms illustrates in fig. 1) is appropriated for a cabin of construction machine or any other suitable cabin. See rejection of claim 6 for the rest of the steps in claim 7.

3. Claim 9.

Ottenstein at col. 2, lines 29-45 teaches that there are three rocker switches on the display 9, which control symbol brightness, raster brightness and overall brightness. The symbol brightness together with overall brightness controls the intensity of the stroke image and the raster brightness together with the overall brightness controls the intensity of the raster image on the screen. Since the automatic brightness control is repeated for the stroke and raster circuitry, only one implementation need be described. FIG. 1 shows the automatic brightness control for raster video and, therefore, the two relevant pilot selected brightness levels produced from their corresponding rocker switches: raster brightness and overall brightness. Note: raster brightness and overall brightness shall be known hereafter as DPU Raster and DPU Brightness.

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Helms in fig. 2 number 14 the photodetector works as a switch for turning an illumination on and off.

4. Claim 10.

The rejection of claim 10 is similar to the rejection of claim 6.

5. Claim 11.

The primary reference in fig. 1, (12, 13 and 14) illustrates two sensors for detecting the ambient light. The auto brightness control provides the following benefits. (1) The display contrast remains constant over varying ambient brightness (2) The display brightness can be controlled by the operator in Auto mode for any fixed level of ambient brightness. (3) More specifically, the display contrast is selectable by the operator, and the last operator selected contrast will be maintained over varying ambient brightness. (4) The display brightness is not reduced by selecting Auto mode. (5) The full range of ambient brightness is supported, from 500 to 4000 Foot-lamberts. (6) Automatic brightness adjustments occur smoothly (without flashing).

6. Claim 12.

The primary reference in fig. 1, (12, 13 and 14) illustrates two sensors for detecting the ambient light. The auto brightness control provides the following benefits. (1) The display contrast remains constant over varying ambient brightness (2) The display brightness can be controlled by the operator in Auto mode for any fixed level of ambient brightness. (3) More specifically, the display contrast is selectable by the operator, and the last operator selected contrast will be maintained over varying ambient brightness. (4) The display brightness is not reduced by selecting Auto mode. (5) The full range of ambient brightness is supported, from

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500 to 4000 Foot-lamberts. (6) Automatic brightness adjustments occur smoothly (without flashing).

Conclusion

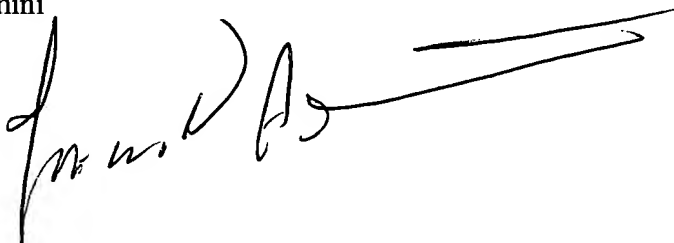
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Javid A. Amini whose telephone number is 571-272-7654. The examiner can normally be reached on 8-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung can be reached on 571-272-7794. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Javid A Amini
Examiner
Art Unit 2672

Javid Amini

A handwritten signature in black ink, appearing to read 'Javid Amini', with a long horizontal stroke extending to the right.